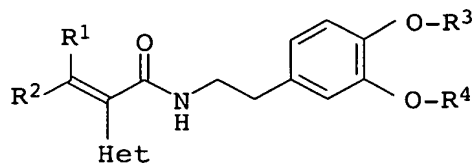


We claim:

1. Phenethylacrylamides of the formula I



in which the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> have the following meanings:

R<sup>1</sup> is hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy or C<sub>1</sub>-C<sub>4</sub>-haloalkyl;

R<sup>2</sup> is hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy or C<sub>1</sub>-C<sub>4</sub>-haloalkyl;

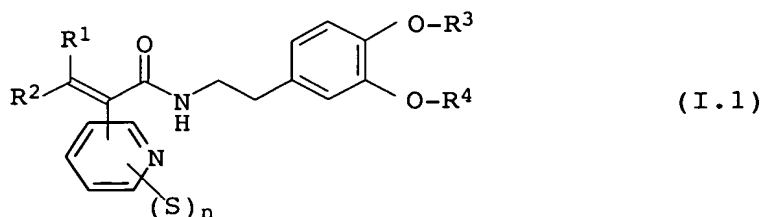
R<sup>3</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, propargyl, C<sub>3</sub>-C<sub>4</sub>-alkenyl or -H<sub>2</sub>C-C≡C-C(R<sup>a</sup>, R<sup>b</sup>)-R<sup>c</sup>, where R<sup>a</sup>, R<sup>b</sup> independently of one another are hydrogen or methyl and R<sup>c</sup> is hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

R<sup>4</sup> is methyl or C<sub>1</sub>-haloalkyl; and

Het is a 5- or 6-membered heteroaromatic ring which may contain a fused 5- or 6-membered carbocycle and which is selected from among heteroaromatic rings containing 1, 2, 3 or 4 nitrogen atoms as ring members, heteroaromatic rings which contain 1 or 2 nitrogen atoms and 1 or 2 further heteroatoms selected from among oxygen or sulfur as ring members, and heteroaromatic rings which have 1 or 2 heteroatoms selected from among oxygen and sulfur as ring members, Het being unsubstituted or it being possible for Het to contain 1, 2 or 3 substituents S selected from among halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkyl and C<sub>1</sub>-C<sub>4</sub>-alkoxy.

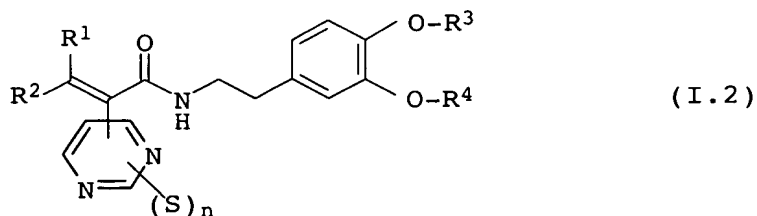
2. A phenethylacrylamide of the formula I as claimed in claim 1, in which  $R^2$  is hydrogen and  $R^1$  is a radical other than hydrogen.
- 5 3. A phenethylacrylamide of the formula I as claimed in claim 2, wherein  $R^1$  is  $C_1$ - $C_4$ -alkyl or  $C_3$ - $C_6$ -cycloalkyl, in particular ethyl, isopropyl, tert-butyl or cyclopropyl.
- 10 4. A phenethylacrylamide of the formula I as claimed in any of the preceding claims, wherein Het is selected from among pyridyl, pyrimidinyl, pyrazinyl, pyrrolyl, thienyl, furanyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, thiazolyl and isothiazolyl.
- 15 5. A phenethylacrylamide of the formula I as claimed in claim I in which  $R^1$  and  $R^2$  are identical and are Cl, F or  $CH_3$ .
- 20 6. A phenethylacrylamide of the formula I as claimed in any of the preceding claims, wherein Het contains one or two substituents S which are bonded to those ring atoms which are not adjacent to the linkage site forming the double bond.
7. A phenethylacrylamide of the formulae I.1, I.2 and I.3

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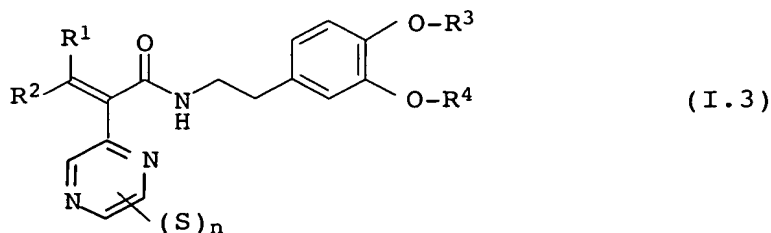


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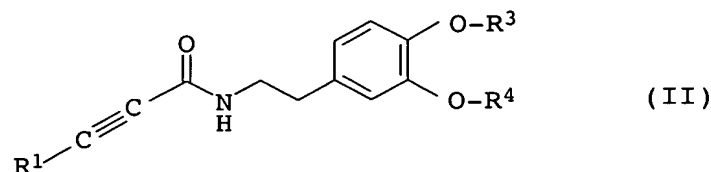
in which the substituents S, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> have the abovementioned meanings and n is 1 or 2, and S is not bonded in the ortho position relative to the linkage site.

- 5 8. A process for the preparation of a phenethylacrylamide of the formula I as claimed in any of the preceding claims, wherein R<sup>2</sup> is hydrogen and R<sup>1</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl or C<sub>1</sub>-C<sub>4</sub>-haloalkyl, and Het, R<sup>3</sup> and R<sup>4</sup> have the abovementioned meanings, comprising the following steps:

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- a) reaction of a phenethylamide of the formula II,

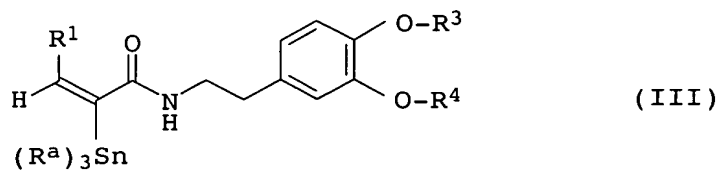
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in which the substituents R<sup>1</sup>, R<sup>3</sup> and R<sup>4</sup> have the abovementioned meanings, with a trialkylstannane (R<sup>a</sup>)<sub>3</sub>SnH, wherein R<sup>a</sup> is alkyl resulting in a compound of the formula III

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wherein the substituents R<sup>a</sup>, R<sup>1</sup>, R<sup>3</sup> and R<sup>4</sup> have the abovementioned meanings, and

- 35 b) reaction of the compound III obtained in step a) with a compound Het-Hal, wherein Hal is bromine or iodine and Het has the meaning given in claim 1, in the presence of catalytically active amounts of a transition metal compound of a group VIII metal;

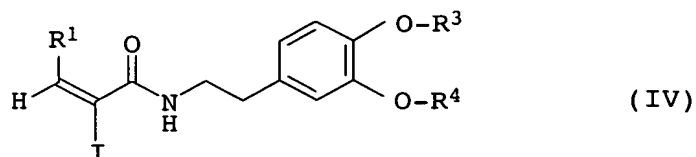
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or

- a') reaction of a compound of the formula II with at least stoichiometric amounts of iodine, resulting in a compound of the formula IV

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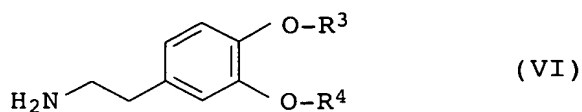
wherein the substituents  $R^1$ ,  $R^3$  and  $R^4$  have the  
abovementioned meanings, and

b') reaction of the compound IV obtained in step a') with a  
stannane of the formula  $(R^a)_3\text{Sn-Het}$ , wherein Het has  
the meaning stated in claim 1, in the presence of  
catalytically active amounts of a transition metal  
compound of a group VIII metal.

9. A process as claimed in claim 8, additionally comprising the  
preparation of the phenethylamide of the formula II, wherein  
a propiolic acid compound of the formula V



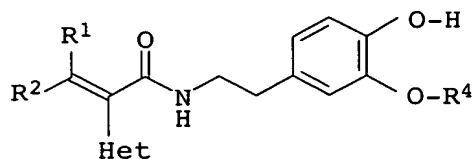
wherein  $R^1$  has the abovementioned meaning and Z is halogen or  
OH, is reacted in a manner known per se with a phenethylamine  
of the general formula VI



wherein  $R^3$  and  $R^4$  have the abovementioned meanings.

10. A process for the preparation of a phenethylacrylamide as  
claimed in claim 1 of the formula I, wherein a  
phenethylacrylamide of the formula I where  $R^3 = \text{H}$ :

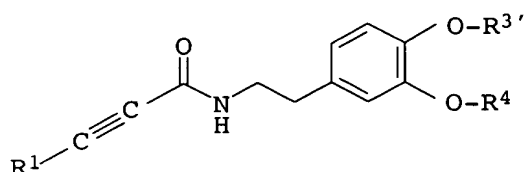
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(I {R<sup>3</sup> = H})

10 wherein Het, R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> have the abovementioned meanings,  
is reacted with a compound of the formula R<sup>3</sup>-Y, wherein R<sup>3</sup> has  
the abovementioned meaning and Y is a nucleophilically  
displaceable leaving group.

11. A phenethylamide of the formula II'  
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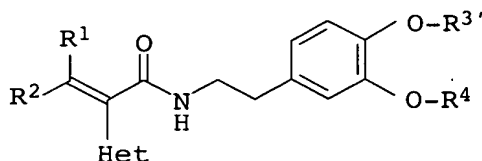


(II')

25 wherein the substituents R<sup>1</sup> and R<sup>4</sup> have the abovementioned  
meanings, R<sup>3'</sup> has the meanings stated for R<sup>3</sup> or R<sup>3'</sup> is  
hydrogen or an OH protecting group.

12. A phenethylacrylamide of the formula I':

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(I')

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wherein Het, R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> have the abovementioned meanings  
and R<sup>3'</sup> is hydrogen or an OH protecting group.

13. A composition for controlling phytopathogenic harmful fungi  
40 comprising a solid or liquid carrier and a compound of the  
formula I as claimed in any of claims 1 to 7.

14. A method of controlling phytopathogenic harmful fungi, which  
comprises treating the fungi or the materials, plants, the  
45 soil or seed to be protected from fungal infection with an  
effective amount of a compound of the formula I as claimed in  
any of claims 1 to 7.